Case 4-22830

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Athanassios Tzikas et al.
Serial No. 10/544,165 — Group Art Unit: 1796
Filed July 29, 2005
For MIXTURE OF REACTIVE DYES AND THEIR USE — Examiner: A. Khan

## DECLARATION UNDER RULE 132

I, Georg ROENTGEN, a citizen of Germany, residing at Reutebachgasse 38, D-79108 Freiburg im Breisgau, hereby declare:
That I was awarded the degree of a Chemical Engineer of the Fachhochschule Aachen, (Germany), in 1990;

That I have been employed by Ciba Specialty Chemicals, Basel, as a research chemist since 1990 and by Huntsman Advanced Materials (Switzerland) GmbH since 2006 and presently hold the position of Head R&D Reacitve Colors in the Division Textile Effects;

That I have been engaged in the field of dyestuffs for Ciba Specialty Chemicals since 1990 and for Huntsman Advanced Materials since 2006;

That based on the above education and experience, I consider myself an expert in the field of dyestuffs.

I, Georg ROENTGEN, declare that the preparation of dyestuff mixtures A and B as well as the following dyeings and tests were carried out under my direction and supervision;

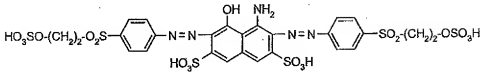
That I am submitting herewith the following exact report of the tests mentioned below.

Determination of Build-up

The following dye mixtures were prepared:

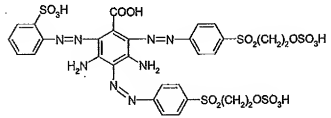
Mixture A according to the present application

78 % by weight of compound of formula (102)




(102)

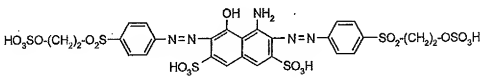
22 % by weight of compound of formula (101)




(101)

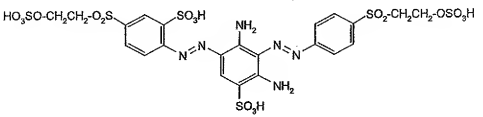
Mixture B according to Example 124 of WO 00/06652

78 % by weight of compound of formula (102)




(102)

22 % by weight of compound of formula (206)




(206)

Determination of Build-up

As described in the present application, a bleached cotton fabric (tricot 1-4002/8) was dyed with Dye Mixtures A (invention) and B (prior art), respectively, according to the exhaust process (liquor ratio 1:10). To assess the build-up properties of the dyestuff mixtures , exhaust dyeings were made at dyestuff concentrations in the dye bath of 0.5, 1.0, 2.0, 4.0, 6.0 and 8.0 % by weight of Dyestuff Mixtures A and B, respectively.
The colour strength of the dyeings was assessed by a commercial colorimetric equipment (Datacolor). The results are summarized in Table 1:

Table 1: Colour Strength in relation to Dye Concentration

| Concentration [%] | 0.5 | 1.0 | 2.0 | 4.0 | 6.0 | 8.0 |
|---|---|---|---|---|---|---|
| A (invention) | 0.62 | 0.99 | 2.06 | 4.00 | 4.77 | 5.17 |
| B (prior art) | 0.50 | 0.91 | 1.83 | 3.60 | 4.46 | 4.90 |

I, Georg ROENTGEN, hereby declare:

1. That based on my education and experience, I consider myself an expert in the field of dyeing art and dyestuff preparation;
2. That the results of the above tests show that the new dyestuff mixture (A) is superior to the structurally closest dyestuff mixture B with respect to the property tested;
3. That build-up properties are an important feature for the textile industry and an improvement in this property is of considerable importance;
4. That the above given measurement of build-up properties demonstrates a significant improvement in this property which is of commercial importance;
5. That the results of the tests are suprising to me and I would not have predicted such difference in the property tested.

I, Georg ROENTGEN, declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this 19 th day of May, 2010

Georg ROENTGEN